Tuna Newsletter

National Marine Fisheries Service
• Southwest Region
• Southwest Fisheries Center

LIBRARY
MAY
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii

IN THIS ISSUE

Issue 97 May 1990

- 1989 U.S. canned-tuna industry highlights: cannery receipts up, raw imports outpace domestic deliveries, and canned imports at record high.....1
- Hawaii Longline Fishing Controversy.....3
- Recent developments in tuna fisheries: news from around the world.....6

U.S. TUNA STATISTICS

Editor's note: The following articles were prepared by NMFS personnel from data and information gathered from sources in the U.S. tuna industry. (A. Jackson)

1989 U.S. CANNED-TUNA INDUSTRY HIGHLIGHTS

Total receipts of raw tuna by U.S. canners increased by 5% in 1989 to 535,069 short tons (st) from 1988 (Table 1). Yellowfin tuna was the principal component of domestically caught deliveries at 118,063 st, followed by skipjack (103,049 st) and albacore (5,027 st). The gap between imports and domestic deliveries widened in 1989, with imports accounting for 58% of the total. Skipjack was the leading import at 126,385 st, followed by albacore (96,337 st) and yellowfin (86,208 st). Major non-U.S. suppliers were Taiwan, South Korea, France and Venezuela (Table 2). The western

Table 1. U.S. cannery receipts (st) of domestic and imported raw tuna by species for 1988, 1989 and the recent (1984-88) average.

SPECIES		Albacore	Skipjack	Yellowfin[1]	TOTAL
AMERICAN SAMOA & CALIFORNIA					
1988	DOMESTIC	4,774	85,214	37,812	127,800
	IMPORTED	27,682	45,641	16,820	90,143
	TOTAL	32,456	130,855	54,632	217,943
1989	DOMESTIC	3,468	88,090	63,868	155,426
	IMPORTED	20,551	42,939	18,584	82,074
	TOTAL	24,019	131,029	82,452	237,500
1984-88 Average	DOMESTIC	5,181	78,619	54,746	138,546
	IMPORTED	24,191	26,722	13,986	64,899
	TOTAL	29,372	105,341	68,732	203,445
PUERTO RICO					
1988	DOMESTIC	2,886	41,243	71,390	115,519
	IMPORTED	71,050	70,253	35,705	177,008
	TOTAL	73,936	111,496	107,095	292,527
1989	DOMESTIC	1,559	14,959	54,195	70,713
	IMPORTED	75,786	83,446	67,625	226,857
	TOTAL	77,345	98,405	121,820	297,570
1984-88 Average	DOMESTIC	1,771	28,179	70,071	100,021
	IMPORTED	75,886	81,975	50,634	208,495
	TOTAL	77,657	110,154	120,705	308,516
TOTAL					
1988	DOMESTIC	7,660	126,458	109,202	243,320
	IMPORTED	98,732	115,894	52,525	267,151
	TOTAL	106,392	242,352	161,727	510,471
1989	DOMESTIC	5,027	103,049	118,063	226,139
	IMPORTED	96,337	126,385	86,208	308,930
	TOTAL	101,364	229,434	204,271	535,069
1984-88 Average	DOMESTIC	6,953	106,798	124,817	238,568
	IMPORTED	100,076	108,698	64,620	273,394
	TOTAL	107,029	215,496	189,437	511,962

[1]Includes small amounts of bigeye, blackfin and bluefin tuna.

Pacific Ocean was the main source of albacore (33,669 st) and skipjack (120,173 st) in U.S. cannery receipts, while the eastern Pacific contributed the greatest quantity of yellowfin (135,126 st) (Table 3).

Contract prices for domestically caught raw tuna delivered to U.S. canneries in Puerto Rico in 1989 were lower than 1988 prices, with the price paid for large yellowfin dipping by almost 20%, from $1,200 to $975 (Table 4).

U.S. imports of canned tuna packed in water reached a record high in 1989 at 348 million pounds, eclipsing the previous record high of 244 million pounds set in 1988. Wholesale list prices for canned tuna in 1989 were stable, and differed only very slightly from 1988 prices, with the exception of light meat, private label which dropped 17% in price from first quarter 1988 to fourth quarter 1989 (Table 5).

1990 U.S. CANNED-TUNA INDUSTRY UPDATE

1990 U.S. imports of canned tuna in water totaled 112.8 million pounds as of April 8, exceeding the import quota of 87 million pounds by 30%. Imports for the same period in 1989 stood at 136 million pounds.

Contract prices for domestically caught raw tuna delivered to U.S. canneries in Puerto Rico in early 1990 were slightly higher than prices paid in early 1989, with all size classes except the three to four pound class showing increases of from 5 to 25 dollars per st (Table 6).

Wholesale list prices for canned tuna as of April 13, 1990, had not changed from the fourth quarter of 1989. The prices for white meat, advertised and private labels, were $64.50-65.00 and $50.00-52.00 per case; light meat prices were $42.45-45.00 and $25.00-27.00.

Table 2. U.S. cannery imports (st) of raw tuna by species[1] and flag of catcher vessel for 1989. Total for 1988 is given for comparison.

COUNTRY	1989				1988 TOTAL
	ALB	SKJ	YFT[2]	TOTAL	
AUSTRALIA	0	491	218	709	0
BRAZIL	2	5,955	118	6,075	7,115
ECUADOR	0	4,913	8,731	13,644	7,495
EL SALVADOR	0	429	72	501	0
FRANCE	2	24,434	7,035	31,471	23,063
GHANA	0	18,733	5,381	24,114	26,471
JAPAN	12,152	902	22	13,076	22,301
MAURITIUS	0	161	58	219	33
MEXICO	0	2,908	13,501	16,409	8,027
NEW ZEALAND	1,023	216	54	1,293	0
PANAMA	2,076	1,020	3,563	6,659	2,549
PORTUGAL	991	0	0	991	444
SINGAPORE	239	0	0	239	0
SOLOMON IS.	0	4,385	397	4,782	4,244
SPAIN	0	11,873	2,778	14,651	14,739
S. KOREA	8,713	24,184	8,065	40,962	42,098
TAIWAN	70,870	5,617	3,556	80,043	76,382
TONGA	217	0	46	263	294
VANUATU	0	12,006	9,952	21,958	13,775
VENEZUELA	11	7,939	22,390	30,340	10,353
OTHER	42	218	272	532	7,768
TOTAL	96,338	126,384	86,209	308,931	267,151

[1]ALB=albacore; SKJ=skipjack; YFT=yellowfin.

[2]Includes small amounts of bigeye and blackfin tuna.

Table 3. Receipts (st) of raw tuna by U.S. canneries by species[1] and area of capture in 1988 and 1989.

SOURCE	1988			1989		
	ALB	SKJ	YFT[2]	ALB	SKJ	YFT[2]
E. ATLANTIC OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	29,280	23,580	4,463	34,096	22,549	6,117
TOTAL	29,280	23,580	4,463	34,096	22,549	6,117
W. ATLANTIC OCEAN						
DOMESTIC	8	0	18	0	0	0
IMPORTED	7,417	8,129	1,069	12,459	6,049	468
TOTAL	7,425	8,129	1,087	12,459	6,049	468
E. PACIFIC OCEAN						
DOMESTIC	4,276	36,503	87,788	1,875	21,347	79,308
IMPORTED	14	9,287	24,778	0	25,192	55,818
TOTAL	4,290	45,790	112,566	1,875	46,539	135,126
W. PACIFIC OCEAN						
DOMESTIC	3,376	89,955	20,989	3,152	81,702	37,977
IMPORTED	41,254	45,577	14,604	30,517	38,471	13,965
TOTAL	44,630	135,532	35,593	33,669	120,173	51,942
INDIAN OCEAN						
DOMESTIC	0	0	0	0	0	0
IMPORTED	20,767	29,322	7,377	19,266	34,125	9,840
TOTAL	20,767	29,322	7,377	19,266	34,125	9,840

[1]ALB=albacore; SKJ=skipjack; YFT=yellowfin.

[2]Includes small amounts of bigeye and blackfin tuna.

Table 4. Contract prices (U.S. $ per st) for raw skipjack and yellowfin tuna for delivery to U.S. canneries in Puerto Rico by U.S. vessels departing on trips in 1988 and 1989. Price range is given for each year.

SIZE CLASS (lbs.)	SKIPJACK		YELLOWFIN	
	1988	1989	1988	1989
<3	340-525	250-390	340-525	250-390
3 to 4	615-800	470-610	615-800	470-610
4 to 7.5	825-1,010	675-815	825-1,010	675-815
7.5 to 20	900-1,075	760-900	935-1,075	785-925
>20	-	-	1,065-1,200	975-1,115

Table 5. Wholesale list price (U.S. $ per case) for canned tuna packed in oil or water, by quarter and brand type for 1988 and 1989.

CASE PACK	YEAR/ QUARTER	ADVERTISED LABEL	PRIVATE LABEL
White meat, solid 12.5-oz (24)	1988 1st	59.50-63.75	51.00-52.00
	2nd	59.50-63.75	51.00-51.50
	3rd	64.50-67.15	51.00-51.50
	4th	64.50-67.15	52.00-54.00
	1989 1st	64.50-67.00	50.00-52.00
	2nd	64.50-65.00	50.00-52.00
	3rd	64.50-65.00	50.00-52.00
	4th	64.50-65.00	50.00-52.00
Light meat, chunk 6.5-oz (48)	1988 1st	42.45-45.00	30.00-32.50
	2nd	42.45-45.00	29.00-32.50
	3rd	42.45-45.00	29.00-31.50
	4th	42.45-45.00	28.50-30.00
	1989 1st	42.45-45.00	26.50-28.00
	2nd	42.45-45.00	24.00-27.00
	3rd	42.45-45.00	25.00-27.00
	4th	42.45-45.00	25.00-27.00

Table 6. Contract prices (U.S. $ per st) for raw skipjack and yellowfin tuna for delivery to U.S. canneries in Puerto Rico by U.S. vessels departing on trips from January 1 to April 30, 1990. Prices for an equivalent period of 1989 are given for comparison.

SIZE CLASS (lbs.)	SKIPJACK		YELLOWFIN	
	1989	1990	1989	1990
<3	325	350	325	350
3 to 4	575	570	575	570
4 to 7.5	770	775	770	775
7.5 to 20	850	860	880	885
>20	-	-	1,045	1,075

1989 U.S. ALBACORE CATCH HIGHLIGHTS

The U.S. fisheries for Pacific albacore had mixed results in 1989. The catch for the south Pacific fishery was 3,700 metric tons (mt), up from 3,600 mt in 1988. This is a new record for the fishery which has been expanding since its beginning in 1986.

The U.S. north Pacific fishery was the poorest on record. The catch was only 1,800 mt for 1989, an all-time low for this fishery that formerly landed an average of about 20,000 mt annually in the 1960s and 1970s. Poor recruitment is believed to have affected the stock and the albacore fisheries throughout the north Pacific.

REPORTS

Editor's note: Original reports are published as a service to subscribers and may not represent the views of the SWR or SWFC. Readers should contact the authors of reports for details, if needed.

New social and biological issues have recently beset Hawaiian tuna and billfish fisheries, as described in the following article. Some of the effects are related to events outside the Hawaiian Islands, and these will be presented in future reports. (D. Au)

HAWAII LONGLINE FISHING CONTROVERSY

Sam Pooley, National Marine Fisheries Service, Southwest Fisheries Center, Honolulu Laboratory, 2570 Dole St., Honolulu, HI 96822, (808) 943-1216

The relative tranquility of Hawaii's tuna fisheries was broken in the summer of 1989 with a dispute erupting between several longline fishing vessels recently arrived from the U.S. mainland and a variety of local, small-scale trollers. It was a classic example of gear conflict that also raised a number of questions about insular fishery interactions for tunas and other pelagics. By fall the dispute had abated, as the seasonal nature of fishing caused a natural separation of the two fleets. But there is still considerable concern that few mechanisms exist for resolving long-term aspects of the conflict. Already by the beginning weeks of 1990, a variety of new entrants had joined the longline fleet; some were smaller vessels more likely to fish near shore and come into greater conflict with the troll fleets.

In the mid-1980s newer, larger vessels entered a variety of Hawaii's fisheries, rejuvenating the fresh-fish market and interest in longline fishing. The latter had been introduced to Hawaii in 1917 by a Japanese

immigrant and has long been a traditional supplier of large sashimi-grade bigeye and yellowfin tuna. In 1979 only 14 vessels fished longline gear (most of these being the older wooden sampans), but the number grew to 37 by 1983, 50 in 1988, and to 76 in 1989. Most longliners operate out of Honolulu on the island of Oahu. Most of the "new" longliners are larger, steel-hulled vessels (length 65 feet) that had conducted their operations in "distant-waters" ranging from 100 to 1,000 miles from Honolulu. Some had also begun targeting swordfish (broadbill) for export to the mainland. A number of the newest entrants have also consistently fished quite close to the main Hawaiian Islands. At the same time (although figures are not available), the number of trollers operating out of small harbors and launching ramps has increased substantially, and they have also begun fishing farther out at sea.

Resentment between troll and longline fleets had already arisen by 1988 as the latter's increased landings of bigeye and yellowfin tuna depressed fresh tuna market prices for troll- and handline-caught tunas. In 1988, while estimated longline landings of pelagic species (marlins, mahimahi, and wahoo) were 1.7 million pounds (valued at $2.2 million) with tuna landings 4.7 million pounds ($13.2 million), the combined landings of the troll and handline fleets were 5.1 million pounds ($8.3 million). By mid-1989, landings of large pelagic species had increased 3.5 fold over mid-year 1987 (2.2 fold over mid-year 1988) and tunas had increased by 45% over mid-year 1987 (15% over mid-year 1988). Meanwhile, possibly by coincidence, local trollers have had 3-4 years of poor seasons for yellowfin tuna, their primary commercial target.

Dissatisfaction is aggravated by the market price structure, which generally favors the longline-caught tunas. Longline prices for large pelagic species in 1988 averaged $1.29 per pound (round weight) and $2.82 per pound for tunas, while troll and handline prices were $1.68 for pelagic species but only $1.62 for tunas. Longline prices of bigeye tuna ($3.35) were 73% greater than for that of the troll and handline caught fish, and 52% greater than for yellowfin tuna ($2.50). [Direct comparison of prices may be difficult because longliners generally catch larger, higher valued fish.]

The dispute, however, really began with the arrival of a fleet of 17 converted shrimp trawlers from the Gulf of Mexico early in 1989. These longline vessels, some of which had previously fished for yellowfin tuna elsewhere, used three operational methods which caused conflict: 1) they set their gear relatively shallow, thereby increasing their "catch of yellowfin tuna and the by-catch" of marlins; 2) they set their gear perpendicular to the "set" of the traditional longliners, thus increasing their conflict with trollers and other longliners; and 3) they set their gear relatively close to shore (within 20-30 miles) and frequently close to the nearshore (3-8 mile) fish aggregating devices (FADs), normal fishing areas of the trollers.

The dispute became public at an Industry Advisory Panel meeting of the Western Pacific Regional Fishery Management Council held July 24-26, 1989 at Kahuku, Oahu. Charter boats and small-scale trollers from the Waianae coast of Oahu complained about the new longliners, and there were reports of physical confrontations at sea, including troll gear and troller's props tangled in longline gear, longline floats and main lines being cut, smaller trollers being forced off course by the longliners, and retaliatory shootings. The conflict was intensified by the ethnic differences amongst the participants, although as time passed, these differences clearly became secondary to the differences between the two modes of fishing. (Ethnic groups involved in the dispute included those of Japanese, Korean, European, and Vietnamese ancestries primarily on the longline side, and Japanese, European, and native Hawaiian ancestries primarily on the troller and handline side. Aside from those of Hawaiian and Japanese ancestry, many on both sides of the dispute are "new" arrivals.)

Small commercial trollers who have operated off Waianae for years and charter boat operators, many of whom are fairly new to the Waianae area, argued that the longliners were "scooping up" all their yellowfin tuna and depleting the supply of marlin, as well as infringing on their "traditional" grounds. Longline fishermen, including old-timers and a number of persons who had been fishing in Hawaii for just a few years, argued that they too had traditionally set nearshore, including off the Waianae coast. They claimed that measures to separate the gears might severely affect their catch, especially in the winter months when there is fishing close to the eastern shore of the Big Island (the island of Hawaii) for bigeye tuna at a time when smaller vessels aren't likely to be fishing.

A series of meetings, most moderated by the Council's chairperson William Paty (who also heads Hawaii's Department of Land and Natural Resources), was held in an attempt to get the facts, bring the sides together, and propose a solution. Questions over jurisdiction in fisheries management were raised because of ambiguity concerning the extent of State of Hawaii waters (in light of President Reagan's 12 mile extension of the territorial sea) and the exclusion of tuna from the U.S. Magnuson Fisheries Conservation and Management Act. By the end of August, the State had asked longline fishermen to stay at least 20 miles offshore and at least 10 miles from the FADs. However, communication with the newest arrivals, i.e. the Gulf of Mexico fleet, proved difficult, and it was only after several sets of longline gear costing $5,000-30,000 had been cut loose and the buyers for fish from those vessels had intervened, that the situation off Waianae appeared resoluble. Since then, the recent arrivals have

been experimenting with deeper gear sets, alternative methods of baiting, and more distant fishing areas.

Meanwhile, fishermen continue to show interest in Hawaii's longline fishery, and new boats from the mainland continue to join the fleet in two's and three's. Some are smaller vessels from the Pacific Northwest; some are local vessels now captained by fishermen from the Gulf of Mexico. There is a rapid "learning curve" for fishermen used to operating on the coastal shelves of the U.S. mainland, as they begin operating over the steeper drop-offs of Hawaii. If most of the new vessels were to operate in the "distant-water" fishery, then gear and fishery interaction problems could be minimal, although market interaction problems would still exist. Already, auction prices at the year-end peak were lower in 1988 and 1989 than in several previous years, the supply of fish being substantially higher.

A central issue in the dispute concerned the type of longline gear used by the newest participants in the fishery. Traditionally, Hawaii longline sampans have used basket gear, which is composed of 60-70 coils of nylon line hooked together to make the main line that is set by hand. Given the weight of the line, the typical parabolic longline sets could be fished at various depths (to over 100 fathoms). While in 1989 approximately 30 vessels were using the basket gear or the closely associated bin gear, many of the newer steel-hulled longline vessels had already begun by 1986 to use monofilament as the main line. This 1,500-1,800 pound test line allows continuous spooling of the main line, but sets are typically shallower (from the surface to 50 fathoms) because of the lightness of the monofilament. However, when combined with a line thrower (or shooter), deeper sets also are possible (up to 150 fathoms). [Deeper sets could be made without a line shooter if weights are applied while setting the gear, but this technique reduces the efficiency of monofilament gear because of greater setting and retrieving time.] In 1989, 32 vessels were using monofilament gear; approximately 14 of these were using line shooters.

Length of the gear was also viewed as important in the dispute, and there were claims of analogy between longline gear and drift-net fishing. However in Hawaii, basket, bin, and monofilament gear are set in approximately the same lengths, 30 miles, although monofilament gear could be set to up to 60 miles.

Depth of set is the important variable and it has two important consequences: first, longline gear set on or near the surface is more likely to foul troller gear, and second, shallow sets tend to catch a higher proportion of yellowfin tuna and marlins. Commercial longline data collected through the NMFS shoreside monitoring program in Honolulu show this tendency. During the peak season of 1988 (October-December), basket gear, fishing deeper on average, caught a higher percentage of bigeye tuna (50% by number of fish) than did monofilament gear (34% by number); correspondingly, basket gear took a lower percentage of billfish (24% by number) than did monofilament gear (34%) (Figure 1). Differences when arrayed across the entire year, however, are minimal because of the greater range of the vessels using monofilament gear.

The differences in catch composition among the longliners, trollers and handliners are shown in Figure 2. Longliners on average caught 70% bigeye, yellowfin, and albacore tuna, 16% striped marlin,

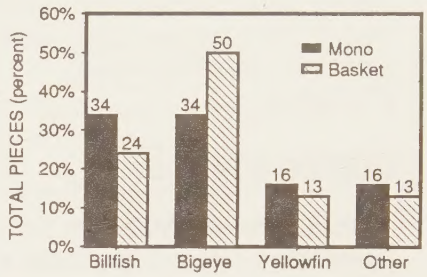

Figure 1. Percentage of catch by gear type, Hawaii commercial longline data, October-December, 1988 (Kurt E. Kawamoto, pers. comm. 1990).

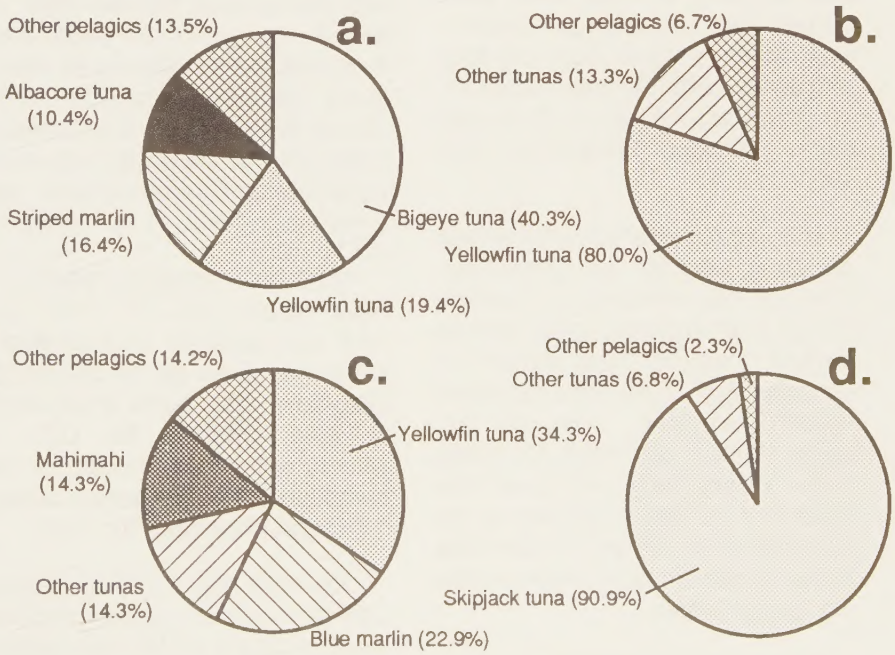

Figure 2. Percentage of catch by gear type, Hawaii's commercial fisheries data, 1988 (NMFS shoreside monitoring program estimates); (a) longline, (b) handline, (c) troll and (d) other gear.

and only 12% other pelagics. Handliners caught 80% yellowfin tuna while trollers caught the widest variety: 34% yellowfin tuna, 23% blue marlin, and 14% mahimahi. Longliners caught 90% of all the bigeye tuna landed in 1988, but only 33% of the yellowfin tuna. Trollers caught 75% of the blue marlin in 1988, while longliners caught 22%.

RECENT DEVELOPMENTS IN TUNA FISHERIES

Editor's note: The following news articles were compiled from NMFS reports, newspapers and fishery trade and industry journals. (P. Kleiber)

UNITED STATES

South Pacific Albacore Off to Good Start--Nearly 50 jig boats are enjoying what could be the best season of a six-year-old South Pacific albacore tuna fishery. The season got off to a fast start in early December with boats averaging 2-4 tons apiece per day. Some daily catches were as high as 8 tons. Though catch rates dropped somewhat as the season wore on, they remained moderate into February. The fish were averaging 15 pounds each. (National Fisherman, April 1990)

U.S. Government Bans the Use of "Seal Bombs" on Dolphins--The U.S. Government has banned the use of explosive pest control devices, know as "seal bombs", in herding dolphins in tuna purse-seine fishing operations. The ban became effective on March 29, 1990. Other nations that fish for tuna also must ban the use of explosives on dolphins within 180 days of that date or their tuna cannot be imported into the United States.

Government scientists conducted a study last year on the effects of small explosive charges on dolphins, as required under the 1988 amendments to the Marine Mammal Protection Act. Participants in a workshop convened to review the study results concluded that dolphins are harmed by seal bombs detonated at close range. They found that explosives used on dolphins could result in obvious physical damage to the animals as well as possible hearing impairment. (NMFS Press Release SWR-90-03)

U.S. Tuna Canners Pledge to Protect Dolphins--The three biggest companies in the U.S. tuna industry pledged on April 12, 1990, not to buy or sell fish caught using methods that kill or injure dolphins. The announcement first came from H.J. Heinz Co. and its subsidiary, StarKist Seafood Co., the world's largest tuna canner. StarKist said that within three months, its products will carry labels promising "No harm to dolphins."

StarKist's chief competitors quickly matched the pledge. Bumble Bee Seafoods and the Van Camp Seafood Co., which markets Chicken of the Sea, made similar announcements only hours later. Van Camp and Bumble Bee are owned by non-U.S. companies. Together, the three canners market about 70% of the tuna eaten in the United States. The United States represents as much as half of the world market for canned tuna. (Los Angeles Times, April 13, 1990)

1990 U.S. Canned Tuna Tariff Rate Quota Set--The 1990 U.S. tariff rate quota for tuna canned in water has been set at 39,534,360 kilograms. This quota is applicable to tuna entering the U.S., or withdrawn from warehouse, for consumption during the period January 1 through December 31, 1990.

The tariff rate is 6% ad valorem until the quota is reached, and then is set at 12.5% for the remainder of the calendar year. The quota is set at a rate of 20% of the previous year's U.S. production. (NMFS, Southwest Region Fisheries Report T-23, March 20, 1990)

SOUTH AMERICA

Colombia Inaugurates Tuna Processing Plant--Colombia President Virgilio Barco inaugurated the new FRIGOPESCA tuna processing plant in the Caribbean port city of Cartagena on January 14, 1990. Tuna caught in the Pacific Ocean is being landed at the plant for cooking, boning and cleaning, after which it is frozen and shipped to U.S. tuna canneries (StarKist and Neptune) in Mayaguez, Puerto Rico.

Three U.S.-flag seiners are currently catching tuna in the Pacific, including Colombian-claimed waters, for delivery to the plant. FRIGOPESCA and other tuna processing plants in the region take advantage of relatively low wage rates for the labor intensive operations of preparing tuna for canning. FRIGOPESCA's Cartagena plant is now processing seven tons of tuna per day. The company expects to increase daily production to about 60 tons per day by April or May, 1990. While important to the local economy, FRIGOPESCA will only be a minor supplier to Puerto Rico where some canneries require 1,000 tons of tuna daily. FRIGOPESCA expects the value of tuna exports to increase from about $12.5 million in 1990 to $30.0 million by 1994. (NMFS, Southwest Region Fisheries Report T-23, March 20, 1990)

EUROPE

French Tuna Slump--Catches for the French tuna fleet last year showed a drop of more than 10,000 tons following a record year in 1988. However, four new purse seiners are being built for French owners and there are plans for another four. France's 31 tuna seiners landed 122,155 tons in 1989 against 132,214 tons in 1988. The drop is mainly due to the 20 ships fishing in

1990 TUNA MEETINGS

(Organizer; meeting type: sci=science, adm=administration)

- MAY 21-24. 41st Tuna Conference. Lake Arrowhead, CA, U.S.A. (Southwest Fisheries Center; sci)
- MAY 25-31. World Meeting on Bluefin Tunas. La Jolla, CA, U.S.A. (Inter-American Tropical Tuna Commission (IATTC); sci)
- JUN 4-8. Third Standing Committee meeting on tuna and billfish of the South Pacific Commission (SPC). Noumea, New Caledonia. (SPC; sci)
- JUN 26-28. 47th IATTC commission meeting. Washington, DC, U.S.A. (IATTC; adm)
- JUL 2-6. Expert Consultation on Stock Assessment of Tunas in the Indian Ocean. Bangkok, Thailand. (Indo-Pacific Tuna Developement and Management Programme (IPTP); sci)
- JUL 9-12. Eleventh Session of the Committee for the Management of Indian Tuna of the Indian Ocean Fisheries Commission. Bangkok, Thailand. (FAO; adm)
- OCT 9-12. Third meeting of the South Pacific Albacore Research Group (SPAR-3). Noumea, New Caledonia. (SPC; sci)
- OCT 16-19. Fourth Southeast Asian Tuna Conference. Bangkok, Thailand. (IPTP; sci)
- OCT 17-23. Third Consultation on Arrangement for South Pacific Fisheries Management. Noumea, New Caledonia. (Forum Fisheries Agency; adm)
- OCT 29-NOV 2. International Commission for the Conservation of Atlantic Tunas (ICCAT), species group meetings. Madrid, Spain. (ICCAT; sci)
- NOV 5-9. ICCAT, Standing Committee on Research and Statistics meeting. Madrid, Spain. (ICCAT; sci)
- NOV 12-15. ICCAT, Commission meeting. Madrid, Spain. (ICCAT; adm)

the Indian Ocean, which caught only 81,500 tons, compared to 1988's catch of 100,454 tons. (Fishing News International, February 1990)

Seychelles-EC Tuna Agreement--The Seychelles and the European Community agreed in January, 1990, on a three-year extension of their fishing agreement. The agreement allows 40 EC tuna vessels to fish in Seychelles waters in return for a lump sum payment of $8.0 million, of which $2.2 million will go to a scientific program, and $0.2 million for the training of Seychellois fishermen. EC vessel owners will pay a fee of $4,000 per vessel each season, and $16 for each ton of fish caught. (NMFS, Foreign Fisheries Analysis Branch)

SOUTHEAST ASIA

Thailand to Build Tuna Research Vessel--The Fisheries Department of Thailand plans to invest $16 million to build a research vessel equipped with tuna purse seine for research in deep-sea tuna fishing. The Department said that research conducted from the vessel would help the country to catch enough tuna to support the local canned tuna industry and would also help make substantial foreign exchange savings, by obviating the need to import tuna. The demand for tuna in Thailand has risen steadily since 1983, when Thailand emerged as the leading exporter of canned tuna. (World Fishing, February 1990)

PUBLICATION STAFF

Alan Jackson, Production
David Au, Reports
Pat Donley, Statistics
Pierre Kleiber, Fisheries Developments
Ken Raymond, Art Director

ORGANIZATION

Southwest Regional Office
E. Charles Fullerton, Director

Southwest Fisheries Center
Izadore Barrett, Science and Research Director, Southwest Region
Gary Sakagawa, Tuna Program Coordinator

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
SOUTHWEST FISHERIES CENTER
8604 LA JOLLA SHORES DR. -P.O. BOX 271
LA JOLLA, CALIFORNIA 92038

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

U.S.MAIL

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF COMMERCE
COM-210

AIR MAIL

HAZEL S. NISHIMURA, LIBRARIAN
NMFS/NOAA (F/SWC2)
2570 DOLE ST.
HONOLULU, HI 96822-2396